

## Plum Brook is ISO 14001 certified

BY S. JENISE VERIS

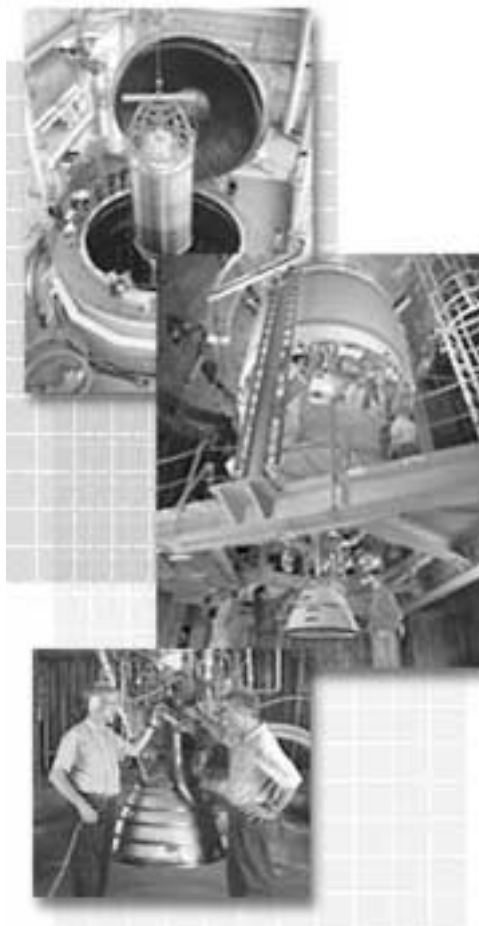
Plum Brook Station (PBS), home to four of Glenn's world-class test facilities, has earned ISO 14001 certification.

ISO 14001 is a management system for improving environmental performance. It helps an organization identify environmental aspects and impact and then develop programs, processes, and systems to reduce any impact. Focusing resources on reducing environmental impacts helps reduce cost and future liability.

"Achieving ISO certification is a wonderful reflection on Bob Lallier (environmental program manager) and the PBS civil servant and contract employees' commitment to work together to assure safe, cost-effective, responsive, and reliable performance of research testing at the facility," said Michael Blotzer, chief of Glenn's Environmental Management Office (EMO).

Lewis Field facilities earned ISO 14001 certification in 2001. PBS did not participate in that audit, according to Blotzer, because a Headquarters Functional Review determined that PBS could not be fairly evaluated due to the absence of an onsite environmental program manager to initiate a plan for improvement. In August 2001, Bob Lallier was hired to orchestrate this task. Lallier previously served as an environmental specialist with the U.S. Coast Guard, Ninth District in Cleveland.

"We looked at all the environmental aspects and possible impacts over the course of several meetings with EMO managers and facility operators. Then, with the help of a risk assessment model, we set objectives and targets of attack to improve environmental performance," explained Lallier. "The whole group considers it a good educational experience and takes great pride in the accomplishment." ♦



## Shin named deputy associate administrator for Aeronautics

Dr. Victor Lebacqz, NASA's associate administrator of the Office of Aeronautics, selected Glenn's Dr. Jaiwon Shin as deputy associate administrator.

"I am very excited about the addition of Dr. Shin to the Office of Aeronautics team," Lebacqz said. "His experience and skills will be critical as we begin designing aircraft to fly on other planets, explore the boundaries of supersonic

and hypersonic flight, and transform the national air transportation system in partnership with other government agencies, industry, and universities."



Dr. Shin

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# Kennedy receives VPP certification, Glenn to follow

The Occupational Safety and Health Administration (OSHA) has named NASA Kennedy a Voluntary Protection Program (VPP) Star site, placing them in the company of an elite group of organizations considered to have the best safety programs in the Nation.

VPP is a national program designed to recognize and promote effective safety and health management. Currently, only approximately 600 organizations have received this honor nationwide.

To qualify for Star certification, an organization's average injury, illness,

and lost work time rates for the previous 3 years must be below the current comparable private sector average rates as reported by the Bureau of Labor Statistics.

"Glenn is a step closer to joining Kennedy, Langley, Ames, Johnson, and White Sands Test Facility as Star Certified under OSHA's Voluntary Protection Program," said Safety Office Chief Manuel Dominquez. "The Center has submitted a final draft of the application for certification to the VPP regional manager in Chicago, IL. This act will begin the formal process for certification under the program. We are

projecting that the formal audit for certification will take place at the beginning of October 2004."

To prepare for the actual audit, the VPP Implementation team will host a series of awareness events to highlight the Glenn Safety Program and the VPP process. In addition, a pre-audit will take place in August 2004 to ensure that all policies, procedures, documentation, and facilities are ready for the formal audit and that the Center is prepared to support OSHA's audit team.

If you have any questions about VPP implementation, contact Ken O'Connor, 216-433-8621, or Antoinette Mayor, 216-433-8689. ♦

## Town Hall meeting

### Jennings and panel speak on cultural change

How do we as an organization with a culture that has been so successful over the years accept the fact that we need to change in order to become better? This is the question James Jennings, associate deputy administrator for Institutions and Asset Management, addressed during the town hall meeting at Glenn on May 11. The all-hands event centered on Headquarters' acknowledgment of and commitment to creating a culture that welcomes criticism and values employee input. Jennings cited the results of the recent Mission Safety Climate and Culture Survey that pinpoints the areas of greatest concern. He reported that 45 percent of the Agency's civil servant workforce (including 32 percent from Glenn) responded to the survey earlier this year. Jennings and panelists, including Victor Lebacqz, deputy associate administrator for Aeronautics; Captain James Wetherbee, astronaut; Dr. Lonnie Reid, retired Glenn employee and president of AP Solutions, Inc., and Glenn Center Director Dr. Julian Earls affirmed the importance of communicating these values with employees throughout the Agency.

Photo by Marvin Smith

C-2004-138



*Town Hall panelists pictured left to right, Weatherbee, Reid, Lebacqz, Earls, and Jennings.*

## Shin leaves Glenn

Continued from page 1

Shin was chief of the Aeronautics Projects Office at Glenn prior to his selection. He served as Glenn's chief of the Aviation Safety Program Office and deputy program manager for NASA's Aviation Safety Program and Airspace Systems Program. He also assisted managers at NASA's Ames and Langley centers with programwide aeronautics advocacy, planning, and research.

Shin joined NASA in 1989 after receiving his doctorate in mechanical engineering from Virginia Polytechnic Institute and State University, Blacksburg, VA. He holds a master's in mechanical engineering from California State University, Long Beach and a bachelor's degree from Yonsei University, Korea. He is a graduate of the Senior Executive Fellowship Program, JFK School of Government, Harvard University, MA. He received NASA's Exceptional Service Medal, Group Achievement Award, and numerous other awards including the Air Force Team Award.

"I look forward to working with Dr. Lebacqz, our folks at Headquarters, and at the field centers in advancing state-of-the-art technologies and leading the Nation in revolutionizing aeronautics research as only NASA can," said Shin. ♦

# Explorer Schools take to the skies

BY DOREEN ZUDELL

Science lab has taken on an exciting new dimension for three NASA Explorer Schools (NES) whose experiments flew onboard NASA's KC-135A aircraft—a flying science laboratory that simulates zero gravity.

This spring, NES participated for the first time in NASA's Reduced Gravity Student Flight Opportunities Program at NASA Johnson. Students were given the chance to successfully propose, design, fabricate, fly, and evaluate a reduced-gravity experiment of their own choice over the course of a school year. This unique academic experience included scientific research, hands-on experimental design, test operations, and educational and public outreach activities.

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Glenn's Nancy Hall demonstrates the use of the glovebox that contained the students' experiment.

## 2004 class inducted into Hall of Fame

NASA's Deputy Administrator Frederick D. Gregory is a member of the eighth class inducted into the U.S. Astronaut Hall of Fame, May 1, during a ceremony at NASA Kennedy's Visitor Center Complex, FL.

Gregory, who was the first African-American to command a space mission, was inducted with four of his shuttle colleagues including Richard Covey, commander of the Hubble Space Telescope repair mission and currently cochair of the Return to Flight Task Group; June Scobee, on behalf of her late husband Francis R. "Dick" Scobee, commander of the ill-fated 1986 Challenger mission; Dr. Kathryn D. Sullivan, the first American woman to walk in space; and Dr. Norman E. Thagard, the first American to live on Russia's *Mir* space station. ♦



The 2004 Astronaut Hall of Fame inductees, left to right, are Fred Gregory, Richard Covey, June Scobee (for Dick Scobee), Dr. Kathleen Sullivan, and Dr. Norm Thagard.

## Educator astronauts join the corps



Museum, Washington, DC. Kneeling, from left, are mission specialist educators Richard Arnold, Chevy, MD; Dorothy Metcalf-Lindenburger, Colorado Springs, CO; and Joseph Acaba, Inglewood, CA; along with Jose Hernandez, mission specialist, French Camp, CA. Standing, from left, is USAF Major James Dutton, pilot, Eugene, OR; Dr. Shannon Walker, mission specialist, Houston, TX; USN, LCDR Christopher Cassidy,

mission specialist, Salem, MA; USAR Major R. Shane Kimbrough, mission specialist, Killeen, TX; Dr. Thomas Marshburn, MD, mission specialist, Statesville, NC; Dr. Robert Satcher, PhD., MD, mission specialist, Hampton, VA. Not pictured is USMC Major Randolph Bresnik, pilot, Fort Knox, KY.

Full biographies and photos of the astronaut candidates are available at <http://www.nasa.gov>. ♦

NASA's 2004 astronaut candidate class was introduced during Space Day activities at the National Air and Space Museum Udvar-Hazy Center in Chantilly, VA. Among the 11 new faces selected are 3 classroom teachers— Joseph Acaba, Richard Arnold, and Dorothy Metcalf-Lindenburger—who applied as mission specialist educators.

NASA's newest astronaut class poses in front of the Space Shuttle *Enterprise* at the National Air and Space

### Drop days

High school students who have been studying how fluids and flames behave on Earth and hypothesizing how they might behave in a weightless environment tested their theories in Glenn's 2.2-Second Drop Tower during the 4<sup>th</sup> annual DIME (Dropping In a Microgravity Environment) Drop Days from April 20 to 22. Early in the school year, student teams developed hypotheses that could be tested through experimentation and prepared scientific research proposals. During DIME Drop Days, under the guidance of Glenn engineers and scientists, each team put its experiment to the test in a weightlessness environment. Participating teams and experiment topics included Archbishop Hoban High School (Akron, OH), Acoustic Levitation in Microgravity; Troy Athens High School (Troy, MI), Water Drops; Felix Varela Senior High School (Miami, FL), Candle Flame Behavior in Microgravity; and Sycamore High School (Cincinnati, OH), Fluid Projectiles in Microgravity. Pictured right, is the Troy Athens High School team getting ready to move their experiment into the level 5 staging area for loading into the drag shield of the drop tower.



Photo by Richard DeLombard

### Guests for a day

Plum Brook Station (PBS) Chief of Operations Rich Kunath, with the help of facility managers, rolled out the red carpet to the children and grandchildren of PBS staff participating in Glenn's Take Our Children to Work Day, April 22. Kunath led the children on a tour of all four world-class test facilities and joined them for a complimentary lunch of pizza, pop, and chips. EVA, the inflatable astronaut, was a surprise guest invited to join them for lunch. Kunath's executive assistant Rowena Butler organized the return and expansion of this outreach effort at PBS. Pictured, right, is Mark Woike, test program manager for the Hypersonic Testing Facility, giving students and parents an overview of testing procedures used in the validation of hypersonic airbreathing propulsion systems.



Photo by Larry Oppen

### Chili cookoff: Everyone wins

"I have never won anything before today," said Quynhgio Nguyen (5160). That was before Team 8—Nguyen and her cooking partner, Raysa Rodriguez (IDI/5100), earned a triple crown at the Third Annual NASA Glenn Great American Chili Cook-Off. Rodriguez's "Hot Chick(en)s Chili" recipe had all the right stuff to win first place for the Judges' Choice, the People's Choice, and overall Showmanship prizes. Eight teams prepared 3 gallons of chili or more to compete for prizes and raise money for Harvest for Hunger (H4H). Second place went to Team 1—Nancy Mansell (IDI/0620) and Sue Blahovec (GLCR/7500)—for their "Christmas Dice Party Chili," and third place to Team 6—Gregory Bobbitt (IDI/9000), Glenn's H4H campaign manager—for "Bobbitt's Bomb House Chili."



Proceeds from the Chili Cook-Off were \$655 and 75 pounds in food items, raising the tally for H4H to \$1221 and 400 pounds in food items. Bobbitt awarded 35 door prizes, in addition to some great prizes and certificates presented to the winning chefs. The outstanding support of local businesses enabled Bobbitt to offer gifts to the other five contestants: Team 2—Dr. Greg Zimmerli (6712) and Karen Barlow (NCMR/6700); Team 3—Anna Falcon (9000); Team 4—Wayne Condo (7320); Team 5—Dale Wiersma (7320); and Team 7—Doug Lehota (7320). Pictured, left, is Denise Prestien (IDI/5100), who assisted Rodriguez, right, and Nguyen.

Photo by Doreen Zudell



## Ask the Director

**Q: Why don't we fly the POW MIA flag all the time instead of just special occasions?**

**A.** Considering that it represents all veterans and all conflicts, I have decided that flying the flag is the right thing to do.

**Q.** The NASA Shared Services Center (NSSC) site selection has been deferred by the Agency to the public-private competition. In other words, the offerors will choose the site that best fits their approach for bidding on the shared services contract based on Headquarters' belief that the offerors are in a better position to more specifically assess and capitalize on certain site-related discriminators. How does this impact our ability to attract the NSSC to the Cleveland area? Doesn't this approach favor Florida who has a lower cost of living and salary workforce versus Cleveland?

Even though we put a good site package together, didn't we get hosed by the approach Headquarters' has decided to take?

**A.** As you are aware, there has been a change in the process of selecting the NASA Shared Services Center (NSSC) site. Initially, the site was to be chosen based upon a set of criteria that was published in December 2003 and this was the basis on which the NASA Glenn proposal was developed. However, NASA has now changed the approach to having both the site and the contractors who do the work for NSSC selected through a single A-76, public-private, competition. Ideally, this approach makes sense in that the bidders for the NSSC work will have the flexibility to put together an in-

tegrated approach to offer the best value for NASA. Our task now is to understand, influence, and actively participate in the new process. We will have the opportunity to comment on the draft RFP when it is issued this month. Our comments will be designed to assure that there is no inherent, unfair advantage to any particular site. We will re-engage the Northeastern community, City of Brook Park, and the State of Ohio in putting together an approach that entices the potential bidders to include the NASA Glenn proposed site as the best site. To accomplish these tasks, I have re-enlisted the original team composed of both NASA Glenn employees and our external partners. This team will continue to be led by Dr. Sasi Pillay. NASA's current approach to use best value as opposed to simply the lowest cost as the selection criteria will continue to make the NASA Glenn proposal competitive.

*The above questions were chosen by the Director as a sampling from the Ask the Director Web site. The entire column can be viewed under Corporate Focus on the Glenn internal homepage (WING). ♦*

## Plum Brook Station documentary debut nears

Erie County residents and guests can take a look back at the history of Plum Brook (PB) Reactor Facility and learn about its future through a documentary premiering July 14 at the State Theatre in downtown Sandusky.

Two years in the making, the 90-minute video features over 20 interviews with former facility workers, decommissioning workers, and community workers, as well as archived footage dating back to 1941, when the War Department first acquired about 10,000 acres of farmland to construct a munitions plant during World War II.

Kate Mulgrew, the actress known for her role as Captain Janeway of the *Star Trek Voyager* series, narrated. Kevin Coleman, the Glenn History

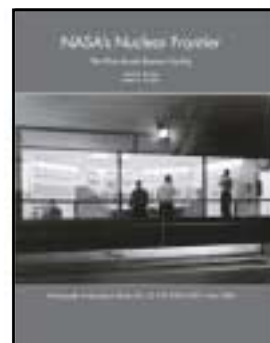
Officer, credited producer-director Jim Polaczynski (IDI), Imaging Technology Center, for doing a fantastic job in reducing more than 100 hours of footage into this informative and entertaining documentary.

"We hope the documentary will be aired on local Public Broadcasting Stations and later made available to schools and organizations, since NASA shares a rich history with the people and communities of Northeast Ohio," Coleman said. "Eventually, a DVD version will be produced and distributed to schools that will include a number of features, including decommissioning footage and interactive lessons."

In addition to the documentary, a pictorial history of the Reactor Facility

was written by Dr. Mark Bowles of History Enterprises, Inc., and archivist Bob Arrighi (IDI), Glenn History Office. The book will be available for the premier.

Bowles was co-author with Dr. Virginia Dawson (History Enterprises, Inc.), on an award-winning book about the Centaur launch program and will collaborate with her on a 400-page history of the Reactor Facility scheduled for publication in 2006—just in time to celebrate Plum Brook Station's 50<sup>th</sup> anniversary. ♦



# Glenn helps NASA Explorer Schools reach for the skies

Continued from page 3

"One of the NASA Explorer School teams in Glenn's region, Crossroads Elementary School in St. Paul, MN, was selected to participate in the activity, so we worked closely with them to prepare for the flight," explained Glenn's NES Program Manager Linda Little, Educational Programs Office (EPO). "The flight team consisted of two teachers from the school; one Glenn mentor Nancy Hall (Fluid

Physics and Transport Branch); and one Glenn Aerospace Education Services Program Specialist Patrick Huth (EPO).

As the mentor and technical advisor, Hall visited the school and worked with 6<sup>th</sup> graders to define the objectives of their experiment, Spinning Tops in Microgravity (STIMG), and challenged them to come up with nontraditional tops, such as a plastic bottle, a foam



*One of the flight teams included, left to right, Glenn's Patrick Huth and Crossroads Elementary School's Alissa Kuseke and Bill Lundquist.*

## Come explore with us

**W**hat better way to inspire tomorrow's explorers than to invite them today to explore with NASA?

The NASA Explorer Schools (NES) program, now in its second year, provides opportunities for educators, administrators, students, and their families to partner with NASA on exciting learning activities. Each year, the NES program establishes a 3-year partnership between NASA and 50 teams of educators and administrators competitively selected from diverse communities across the country.

In 2003, five teams in Glenn's six-state region were selected as Explorer Schools. Throughout the year, Glenn personnel worked closely with the schools to provide mentorship, distance-learning opportunities, and resources to supplement the school curriculum. In 2004, six more teams have been welcomed into the program: Farnsworth Aerospace Elementary Magnet School, St. Paul, MN; Ann Arbor Public Schools, Ann Arbor, MI; Elizabeth Courville Elementary School, Detroit, MI; Harriet Tubman Elementary School, Dolton, IL; Franke Park Elementary School, Fort Wayne, IN; and Cumberland Middle School, Cumberland, WI.

The program begins with a 1-week customized professional development workshop held at Glenn to assess the curriculum needs of each team and develop action plans. Under the program, which is targeted for students in grades 4 through 9, teams implement the 3-year action plans that address local challenges in science, technology, and mathematics education.

Glenn's NES Program Manager Linda Little, Educational Programs Office, oversees the program. She also coordinates the annual summer workshop at Glenn, which provides NES-related training for educators and administrators. This is a vital opportunity for Glenn to assess the needs of the teams and provide the resources to create fun and productive learning opportunities for the students.

Little affirmed, "Being part of the NES program is an exciting experience that enables us to introduce students—through real-life experiences—to NASA's mission and encourage them to imagine the possibilities as future explorers."

For more information about the Explorer Schools Program, contact Little at 216-433-9071, or visit the Web site at <http://explorerschools.nasa.gov>. ♦

football, and a CD. Hall's duties at Johnson included testing each top and recording preflight data.

"It was a thrill for me to share this experience with the students and to show them that NASA engineers are 'real' people," Hall explained. "Exposing students to the scientific process is an invaluable aspect of this project as well."

In addition to the value of students designing their own experiment, this unique activity gave teachers an once-in-a-lifetime opportunity to fly aboard the NASA aircraft to test their students' experiment in a microgravity environment. As the NASA educator advisor for the Crossroads team, Huth helped the school identify how this special activity could fit into their curriculum and provided resources to enhance the learning experience. At Johnson, Huth helped set up the experiment and assisted with the testing (top spinning) during flight.

"This was an awesome opportunity for Glenn to 'team up' with a school," Huth said. "If this doesn't excite students about engineering and science, nothing will!"

For highlights of the Crossroads Elementary School KC-135A experience, visit [http://crossroads.spps.org/NASA\\_Explorer\\_School.html](http://crossroads.spps.org/NASA_Explorer_School.html). ♦



Open  
House

# Journey to Tomorrow

June  
12 and 13

After NASA Day at Jacobs Field on June 10 and Technology Showcase on June 11, Glenn will open its doors to the public. On June 12 and 13, visitors can explore the frontiers of air and space through a variety of exciting venues. Voyage to where imagination becomes reality and scientific research becomes the foundation for everyday applications. Glenn employees and their families and friends are encouraged to come out to enjoy the fun!

For more information visit:

[www.journey.grc.nasa.gov](http://www.journey.grc.nasa.gov)

## FACILITY TOURS

Visit wind tunnels where NASA tests jet and rocket engines; a zero-gravity facility that conducts ground-based microgravity research, and laboratories that support other research and development activities. Tour stops feature six major research facilities.

### Take home souvenirs

### RESEARCH DISPLAYS

Glenn's landmark Hangar will house a variety of exhibits showcasing research in the areas of communications, space and aeronautics propulsion, materials, instrumentation and controls, computer sciences, and more.

### Meet Ohio astronaut Don Thomas



Thomas

### Walk through a wind tunnel

### Talk to a scientist

## FAMILY ACTIVITIES

### • Interactive Zone

Through cutting-edge technology visitors can virtually immerse themselves in the footsteps of the Wright Brothers, aeronautics engineers, and astronauts. Highlights include wing warping with the Wright Brothers, the Starlab Planetarium, a wind tunnel, a Mars robot, microgravity gloveboxes, and more.

### • Imagination Zone

Hands-on activities—pop, straw, and racer rockets; paper airplane contest; space shuttle glider; and more—cover scientific principles such as Newton's Laws of Motion and conservation of mass.

### • Talk to a Scientist Zone

Visitors will hear presentations and ask questions of experts in the field of Glenn research. Topics include "12 Seconds That Changed the World," "NASA Spin-Offs: For the Benefit of You," "Mars: The Next Giant Step," and more.



# Glenn presents support assistant and clerical awards

Ten civil servant and support service contractors were recognized for their outstanding work during the 2004 Support Assistant and Clerical Award reception on April 23. This year's recipients include the following employees:

**Barbara Alexander**, InDyne, Inc., provides clerical support to the Acoustics Branch. She has worked at Glenn for 12 years.

**Margarita Aponte**, InDyne, Inc., provides clerical support to the Logistics and Technical Information Division. She has worked at Glenn for 14 years.

**Jean Bevelacqua**, InDyne, Inc., provides clerical support in the Industrial Property Office. She has worked at Glenn for 20 years.

**Diane Benton** (not pictured) is the management support assistant in the Avionics, Power and Communications Branch. She has worked at Glenn for 20 years.

**Barbara Bartos** (not pictured) is the executive support assistant in the Research and Technology Directorate. She has worked at Glenn for 16 years.

**Nicole Duff**, InDyne, Inc., provides clerical support to the Organization Development and Training Office. She has worked at Glenn for 5 years.

**Frances Pipak** (not pictured) is the administrative support assistant in the Office of the Director. She has worked at Glenn for 23 years.

**Kristin Ratino**, InDyne, Inc., provides clerical support to the Instrumentation and Controls Division. She has worked at Glenn for 3 years.

**Kathryn Roser** is the management support assistant in the Resources Analysis and Management Office. She has worked at Glenn for 16 years.

**Theresa Santos** is the office automation assistant in the Advanced Metallics Branch. She has worked at Glenn for 3 years. ♦



*Pictured (top row, from left) Alexander, Aponte, Bevelacqua, Duff, (bottom row) Ratino, Roser, and Santos.*

## ACTS ends its mission

Glenn shut down the Advanced Communications Technology Satellite (ACTS) on April 28 after more than 10 years of highly successful on-orbit operations.

"The satellite, with its communications payload and bus systems still fully functional, was shut down due to a funding shortfall whereby the Ohio Consortium for Advanced Communications Technology (OACT) can no longer reimburse NASA for mission operations," said Richard Krawczyk, Project Management Branch.

ACTS was launched by Space Shuttle *Discovery* (STS-51) on September 12,

1993, to start a revolution in satellite communications by opening the Ka frequency band. New technologies that were validated included a multibeam antenna with high-gain, hopping spot beams, onboard processing, wideband (900 MHz) transponders, and rain fade compensation.

The ACTS experiments program was so successful, with over 100 users and numerous awards, that the original 2-year mission was extended twice before Glenn officially concluded the program in May 2000.

As the satellite prepared for retirement, OACT offered to continue funding operations for educational and research purposes under a Space Act Agreement, starting in 2001.

"The successful partnership between OACT and Glenn continued to develop new Ka-band applications while giving students hands-on experience with communications satellites," said Krawczyk. "Now that the consortium has exhausted its funding, Glenn will take steps to leave the satellite in a secure inert state for final shutdown." ♦

Photo by Marvin Smith

C-2004-586



*Kamara Brown and Bruce Curry, (CMST) Space Communications Programs, shut down the ACTS on April 28.*



# Some of Glenn's best and brightest recognized

By S. JENISE VERIS

Before rockets are launched, rovers land to traverse far-away planets, or space telescopes reveal things never before seen, people with bright ideas spend countless hours researching, calculating, and modeling.

Examples of Glenn researchers, engineers, and craftsmen's creativity that enable NASA missions were displayed during the craftsmanship competition on April 19. Their innovation was rewarded with Craftsmanship Awards, the Steven V. Szabo Engineering Award, and the Abe Silverstein Award. Winners will be recognized at the NASA Honor Awards Ceremony in August.

The Craftsmanship Awards are presented to one craftsman or team for making a contribution requiring a high degree of skill and imagination that result in the fabrication of a component or system. One award is presented for Manufacturing and another for Assembly and Buildup.

The Parametric Inlet Team of **Philip Bastian, Phillip Beck, Greg Blank, Chris Conrad, Dale Dragony, Ralph Fekete, Jose E. Gonzalez, Robert Hauer, Richard Kelsh, Carol Laverne, Jesus Lopez, Steven Miller, Richard Minter, Jerome Priebe, Adam Redding, and Patrick Spanos** from the Engineering Technical Services Directorate received the Machining Award. Their individual expertise in precision machining and instrumentation was blended to fabricate hardware and to install unique program fixtures for the waverider inlet design concept, which works to analyze engine performance and reduce stall.

**Bruce Viergutz**, R&D Labs Technical Branch, was recognized for innovativeness and craftsmanship in the development of the ferroelectric reflectarray antenna, a low-cost alternative for low-Earth-orbit applications. He has conceived and performed complex installation, testing, and troubleshooting of the unique experimental equipment used to resolve complex design concepts for satellite and antenna systems.

The Steven V. Szabo Engineering Excellence Award is Glenn's top engineering award, and recognizes an engineering application that has been of significant help in solving an important or difficult problem. The Rotating Microphone Rake is a revolutionary acoustics measurement system for measuring the phenomenon of spinning acoustic modes and harmonics created in turbofan noise of modern commercial jet engines. The engineering team of **Kevin Konno**, Turbomachinery Branch; **Daniel Sutliff**, Acoustics Branch; **Gerald Hill**, Project Management Branch; and **Ray Homyk** (Zin), Engineering Development Division, designed this invention, which rotates a microphone synchronized with the turbofan to gather data that helps determine the unique acoustical signature of an engine.

**Dr. Steve Arnold** received the Abe Silverstein award for outstanding research contributions to establishing a practical application that has been referenced or documented in a variety of publications and patents. Arnold was lauded for 12 years of leadership in Glenn's Life Prediction Branch and for personally developing deformation and failure models that are part of the award-winning micromechanics analysis code known as MAC/GMC. MAC/GMC has significant and diverse impact for structural and multifunctional aerospace and secondary industry applications, such as morphing, tire design, and composites for longer lasting dental fillings.

*Viergutz holds a prototype of the ferroelectric reflectarray antenna that merited a Craftsmanship Award for Assembly.*



*The Craftsmanship Award for manufacturing went to, from left, Bastian, Spanos, Hauer, Priebe, Gonzalez, Dragony, Blank, Minter, and Miller. Pictured with the Inlet are Lopez and Conrad. Not pictured, Beck, Fekete, Kelsch, Laverne, and Redding.*



*Szabo Award winners, from left, Hill, Sutliff, Homyk, and Konno in front of the Rotating Microphone Rake located in the Aeroacoustic Propulsion Lab.*



*Abe Silverstein Award Winner, Dr. Steve Arnold.*

## People

### Promotion

**Stephanie Brown-Houston** has been selected for the position of education program specialist for the Education Programs Office. Brown-Houston gained extensive knowledge and experience supporting the Educational Program Office as an Omni, Inc., office assistant and working with students and their parents in Glenn's educational programs. Prior to this position, Brown-Houston served as management support assistant in the Systems and Program Office. She has received numerous awards for her outstanding administrative skills during her 19-year career on Lab.

### Awards and Honors

**Robert Acosta**, Antenna, Microwave and Optical Systems Branch, received a Goddard Exceptional Achievement Group Award for his contributions to determining the "root cause" of the anomaly and its repair in the Tracking and Data Relay Satellite System (TDRSS-H) Multiple Access Antenna.

**Dr. Sanjay Garg**, Instrumentation and Controls Division, was elected to a 2-year term as chair of the American Institute of Aeronautics and Astronautics' Intelligent Systems Technical Committee, which addresses the application of artificial intelligence technologies and methods to aeronautic and astronautic systems.

**Dr. John Gyekenyesi**, chief, Structural Life Prediction Branch, was named a Fellow of the American Ceramics Society. The author or coauthor of more than 80 technical publications, he has received numerous awards from NASA, the American Society of Materials Engineering, and *R&D Magazine*. During Gyekenyesi's 32-year career at NASA, his work has focused on deformation and life prediction of ceramic and composite components.



Brown-Houston



Acosta



Dr. Garg



Dr. Gyekenyesi

## Retirements

**Gerald Danzey**, Facilities Division, retired on April 2, 2004, with 34 years of NASA service.

**Daniel Simon**, Engineering Development Division, retired on April 30, 2004, with 30 years of NASA service.

**Thomas Dorony**, Research Testing Division, retired on April 30, 2004, with 41 years of NASA service.

## In Memory

### Senior research engineer dies

**Dr. Vijay Garg**, a senior research engineer supporting Glenn's Turbomachinery and Propulsion Systems Division passed away suddenly on May 3, 2004, at the age of 57.



Dr. Garg

Garg was an onsite contractor from the University of Toledo's (UNT) Department of Mechanical, Industrial, and Manufacturing Engineering.

Garg began his career at Glenn in January 1992 as National Research Council senior research associate in the Turbomachinery Flow Physics Branch. He published nearly 30 technical papers, primarily on the computational model-

ing of the film cooling of gas turbine engine turbine blades. He was a Fellow of the American Society of Mechanical Engineers (1990) and Fellow of the Institute of Energy Engineers in India (1984). Garg is survived by his wife, Anita, who is a UNT resident researcher supporting the Materials Division, and two children, Ankur and Anubhav.

**Carl Ciepluch**, 74, who began his NACA-NASA career in 1952, recently died. At the time of his retirement in 1987, he was a research engineer. ♦

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**grc.nasa.gov**

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**DEADLINES:** News items and brief announcements for publication in the July issue must be received by noon, June 11. The deadline for the August issue is noon July 16. Submit contributions to the editor via e-mail, doreen.zudell@grc.nasa.gov, fax



216-433-8143, phone 216-433-5317 or 216-433-2888, or MS 3-11. Ideas for news stories are welcome but will be published as space allows. View us online at <http://AeroSpaceFrontiers.grc.nasa.gov>.

## News Notes

**LESA MEETING:** LESA/IFPTE, Local 28, will hold its next monthly membership meeting on Wednesday, June 9, at noon in the Employee Center.

**ATTENTION STAR GAZERS:** Glenn's Visitor Center (VC), in collaboration with Schuele Planetarium and the Cuyahoga Astronomical Association, will present "Star Gazing" on Saturday, June 19, from 10 a.m. to 11 p.m. Jay Reynolds, director of Schuele Planetarium at the Lake Erie Nature & Science Center, will direct presentations at the VC ranging from "Twinkle Tots," a kid-friendly toddler program to "The Night Sky" astronomy program. Don't miss this opportunity to experience a full day and night of hands-on telescope and solar telescope instruction, see space memorabilia, and make space crafts to wear! There will be telescopes set up outdoors for night-time star gazing (weather permitting) and extended hours until 11 p.m. Call 216-433-9653 for details.

## In Appreciation

My family and I would like to thank my friends and coworkers at NASA for their expressions of sympathy and condolences following the recent passing of my dad. The response has been overwhelming and I am deeply touched that so many people would care so much. Your flowers, cards, and donations have offered great comfort to us in this time of despair. Thanks so much to all of you for your support. —**Barry Piendl & family**

## Exchange Corner

- Discount movie tickets and Cedar Point and Geauga Lake amusement park tickets are available in the Exchange Store.
- The Main Cafeteria and Exchange Store will be open Saturday and Sunday, June 12 and 13 for the Open House.
- A Father's Day sale will be held Thursday and Friday, June 17 and 18, in the Exchange Store. Save 20 percent off items.

## Behind the Badge

### a closer look at our colleagues

#### Fred Oswald



*Oswald bikes into work as often as possible.*

**Job Assignment:** I'm a mechanical engineer in the Mechanical Components Branch.

**Time at NASA :** I've been here for 21 years.

**Describe your family:** My wife, Dianne, is a retired elementary school teacher. My daughter, Robin, is a professional triathlete (Ironman races, etc). My son, Jay, is working on a master's degree in engineering with the help of Glenn's Seals Team and he is a serious trombone performer. My son, Michael, is a horn performance major at the Cleveland Institute of Music. We also have two elderly moms that need looking after.

**Hobbies/interests outside of NASA:** I've been riding a bike to work for many years, initially for badly needed exercise and to reduce my personal environmental impact. After some initial difficulties, I gained enough experience to learn that much of what we have all been taught about bicycle operation is wrong and some of this is dangerous. A bicycle is actually a vehicle and the best way to use it is to drive it like a vehicle. In particular, if you go faster than walking speed, it is very dangerous to ride on the sidewalk. I discovered that traffic ordinances in some local communities mandate dangerous practices such as riding on sidewalks. About 2 years ago, I became certified as a cycling instructor and just finished my first classes as a teacher. I am a director of the Ohio Bicycle Federation and the new Cleveland Bikes. With both organizations, I focus on proper operation and on law reform.

**Stress buster:** Other than riding to work, I listen to classical music. I am really pleased that both my sons are classical musicians.

**Favorite Web site:** The Crankmail Web site, [www.crankmail.com](http://www.crankmail.com), rates bike ordinances for 60 northeast Ohio communities. You can also find many articles about technique, laws, facilities, and advocacy on several sites on the Web. At Glenn, I have been involved with the GO-BIKE group under the Safety Office. Enter "GO-BIKE" in the Transporter to see more information, including many of the articles from the Crankmail site.



Glenn's Shoe Fund, a 34-year tradition that helps make the school year brighter and warmer for needy children, will hold its annual fundraiser drive June 7 through June 11. Donations will go to Shoes and Clothes for Kids, a local charity that provides hundreds of pairs of shoes and clothing items to children in the Cleveland area. Watch for flyers and envelopes on donating. For further information, contact Marcia Bellamy, 216-977-7452, or Mary Beth Celebrezze, 216-433-2559.

# Taking them under their wings

Is this something I might like to do, or is this way out of my league? That's what 120 girls from Cleveland Metropolitan School were pondering on a recent field trip to Glenn. They are among 250 girls from 14 northeast Ohio schools participating in a new short-term mentorship program sponsored by the International Women's Air & Space Museum, Inc., (IWASM) *Cleared for Liftoff! A New Generation of Women*.

IWASM launched the program to attract middle-school-aged girls to careers in aviation, space, math, science, or technology during Women's History Month, with the help of a \$30,000 Alcoa Foundation grant. Five Glenn employees were among 16 mentors introduced to the program participants during the March 9 conference, where Center Director Dr. Julian Earls was a featured speaker and Carol Tolbert, Glenn's Space Transportation Project Office, gave the keynote address.

Glenn mentors include Diane Linne, Turbomachinery and Propulsion Systems Division; Anne McNelis, Structural Systems Dynamics Branch; Dr. Carolyn Mercer, Aeropropulsion Projects Office; Cynthia Calhoun, Risk Management Office; and Kim de Groh, Electro-Physics Branch.

It's been a wonderful opportunity for women to communicate with a large group of girls and share with them career experiences and advice," said de Groh. "I think we're having a positive impact, as witnessed from a recent online message: *"I never really considered NASA as a job ...it just didn't seem like a place were they had women work ...I really thought your job was exciting, so thanks..."*

From March to September, these mentors establish and maintain continuous dialogue with a group of girls via e-mail and an online discussion boards. During these discussions, the mentors direct students to relevant Web sites, literature, and other media; propose activities for individual investigation; share experiences; and utilize IWASM's Education Braintrust Liaison as needed.

Students representing Shaker, Euclid, Wickliffe, Mentor, Cleveland, and Willoughby toured several sites and viewed a film presentation on former astronaut Mae Jemison at the Visitor Center before concluding their visit to Glenn, which was one of four field trips planned for the month of May.



Linne yells above the noise of vent fans to point out the cooled test panel between runs at Cell 22 of the Research Combustion Lab.

Photos by S. Jenise Veris



Susan Wrbanek (5520) demonstrates trapping micro-scale objects with optical tweezers for an IWASM tour group.

On September 3, mentors and students will attend a pre-Air Show Awards Brunch at the museum, located at Burke Lakefront Airport. For more information about the program, visit <http://www.iwasm.org/>. ♦

## National Aeronautics and Space Administration

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